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# Organisational transition from products to engineering services: An employee perspective

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## Abstract

The organisational transition from products to engineering services requires manufacturers to enable various changes at the organisational and individual level. The purpose of this paper is to investigate the individual level of servitization starting from understanding different strategic stages of transition. Based on an initial theoretical review of the literature on servitization, service operations and organisational psychology, we propose a conceptual framework that details organisational transition stages and the employee-related aspects. This framework contributes to the servitization literature by proposing a different approach of the transition. Starting from the specific of each stage of transition, we identified the aspects that require employees' implication and proposed insights for their side of the transition. Providing an employee perspective of the transition could facilitate the overall transition by enabling managers to identify those aspects that require their attention and develop suitable strategies. The framework further facilitates managers to understand the employee-related aspects and consequently include them in their decision-making.

**Keywords:** organisational transition, engineering services, employees.

## Introduction

Many manufacturers face organizational transitions to becoming increasingly service-focused (Vandermerwe and Rada, 1988) and customer-focused (Ahamed et al., 2013). This organizational transition has often been described under the keyword servitization. Organizational transitions require attention to the organizational level changes and the individual employee-level changes (Rese and Maiwald 2013).

Current research provides extended insights into the organizational level of servitization as the company strategy (Rabetino et al., 2017) and the organisational culture

(Nuutinen and Lappalainen, 2012). The “organisational transformation” (Bustinza et al., 2017) or the “service journey” (Martinez et al., 2017) has been discussed as a process of integrating products and services in the business model of the company rather than a specific transition from offering products to offering services (Peillon et al., 2015). In this way, manufacturers that started adding basic services to their business models, later on, based on their resources, could enlarge their offerings with advanced services in a process of integrating basic and advanced services in the portfolio (Benedettini and Neely, 2018). For the purpose of this paper, we decided to label the servitization process as the “organisational transition from products to engineering services” because we are interested in exploring and explaining different characteristics of the process as well as enabling managers to identify and use what is relevant for their specific transition (Bustinza et al., 2017; Lütjen et al., 2017). The label “engineering services” is used to describe both basic and advanced services due to their industrial approach and their common use in the manufacturing sector (Steinmann et al., 2014).

What is missing in the current literature are explanations of the individual level of servitization, with a focus on the employees implication (Rese and Maiwald, 2013). For a service integration, relevant support from individual employees that are expected to engage in the process is one of the key points (Bel et al., 2018). For example, the selling of services depends on people in relevant positions and, having the focus on employees’ skills and motivations is another key point for the transition (Kanninen et al., 2017). Moreover, authors have called for research to investigate the individual aspects that lead people to a specific behaviour in different stages of servitization (Lenka et al., 2018). In order to further the research interested in the individual level of transition we investigate the following research question:

*What are the employee-related aspects that need to be considered in different stages of the transition towards engineering services provision?*

This research proposes a conceptual framework that is aimed at providing guidance for further empirical investigations. We present an initial literature review to develop this conceptual framework.

## **Research method**

In order to investigate the relevant stages of the transition towards the servitization and the employee-related aspects specific for each stage, we conducted an unsystematic theoretical review that enabled us to combine insights from theoretical and empirical studies (Paré et al., 2015). Considering the organisational transition as being specific for each organisation, we investigated strategic stages that could be relevant for different manufacturers due to their general approach. Starting from investigating the servitization literature and understanding the specific of the transition stages we linked, in an iterative process, two of the stages of servitization identified by Vandermerwe and Rada (1988) with three of the most frequent strategic stages identified in a review conducted by Martinez et al. (2017). For providing the employee perspective, we investigated the case studies concerning the servitization process, empirical studies that researched the employees as the operational resource of the company and a theoretical paper that proposed an orientation towards the individual level of servitization. Based on the specific of the change, we linked those specific employee-related aspects to each stage. Furthermore, general aspects that support the transition as different types of commitment and the individual change experience have been investigated in empirical and theoretical papers.

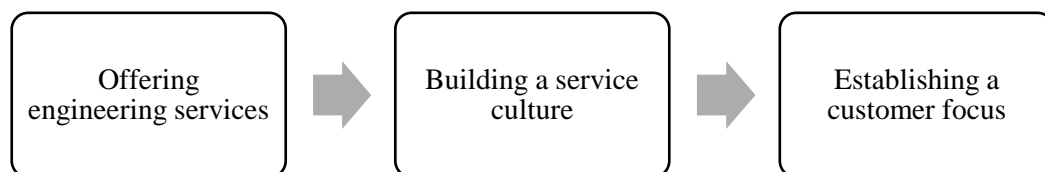
In the following sections of the paper, the stages of transition identified in the literature are described and insights into the employee-related aspects are provided.

### **Organisational transitions towards engineering services**

The integration of services into the company portfolio is a long term process that involves different stages (Peillon et al., 2015) and consists of different models of change (Martinez et al., 2017). Vandermerwe and Rada (1988) explained the companies' patterns as starting with a focus on only one of the offerings, products or services, which is followed by integrating those offerings in a package, and finally offering packages of services that cover the customer needs.

Following these descriptions, research papers offered a large overview of transition stages. Martinez et al. (2017) reviewed several examples and defined the servitization as happening in strategic and operational steps. The authors concluded that most of the companies' strategic stages started with adding services related to their products. In this stage, companies are introducing into their portfolio, operational services that usually help the customer process of installing and maintaining the products (Salonen, 2011). For some companies, the services related to products, as delivery, are not creating revenue due to the lack of value awareness (Reinartz and Ulaga, 2008). In order to, build an image as provider of both products and services, the company undergoes the second most discussed strategic stage identified by Martinez et al. (2017), the development of a service culture. For manufacturers, this stage implies changing the mindset of stakeholders from offering products to providing solutions as a result of a long-term process of including the service values alongside to their core values (Gebauer et al., 2006). The following stage concerns the preparation of the product-services that should be included into the company's portfolio (Martinez et al., 2017). The main focus here is on understanding the customer activities and needs (Lim et al., 2012) and could be similar to the last stage explained by Vandermerwe and Rada (1988). The last strategic stage describes the process of testing the design of the services (Martinez et al., 2017) and is not described in this paper as is more related to the service than the organisational transition. The operational level of transition includes mainly aspects related to internal level of the company as employees (Martinez et al., 2017).

Based on these investigations, the organisational transition of servitization can be conceptualised in three stages as depicted in Figure 1.



*Figure 1 - Strategic stages of the organisational transition towards servitization*

The first stage focuses on offering engineering services as a distinct business opportunity. In the process of adding engineering services to the main offerings of the company, the specific of the company - customer interaction shifts from “product provision – payment received” to developing continuous engagement around the service provision. The specific of the engineering services within this stage is related to the core product (Gebauer et al., 2006) hence the relationship between company and customers requires a low level of interaction (Salonen, 2011). In order to provide this type of engineering services, organisational capabilities that support the mutual engagement are required (Oliva and Kallenberg, 2003; Davies, 2004). This often involves the creation of

a new service department including own performance metrics, local service culture and separate value stream with employees who specialise on the provision of engineering services and (Oliva and Kallenberg, 2003). The process of evaluating the company's offerings requires new performance metrics suitable for both products and services (Martinez et al., 2010) and performance indicators for employees (Gebauer et al., 2006).

The second stage focuses on building a service culture. Evaluating the organisational culture provides evidence for the overall image of the company (Nuutinen and Lappalainen, 2012) and the specific view of manufacturers as product providers is one of the main challenges in the transition process (Martinez et al., 2010; Dubruc et al., 2014). This includes internal standardisation and optimisation of service-related processes, including service provision, service development and sales. The aim is to have a standardised service portfolio that reflects organisational standards and image.

The third stage focuses on building a customer culture where customer needs are the basis for the provided and new service offerings (Marques et al., 2013). This requires manufacturers to restructure their value stream around the provided customer value rather than internal capabilities and processes (Martinez et al., 2017). Long-term and deep customer relationships are required to access the information needed for this purpose (Kreye et al., 2015).

### **Employee-related aspects in the service transition**

The employee related aspects distil down to aspects that are specific to the transition stage, i.e. which one of the three transition stages described above the organisation is in, and general aspects that apply to any organisational change or transition. This section describes these elements in two separate sub-sections.

#### *Transition-stage specific employee aspects*

In the first transition stage (offering engineering services), the differences between production and service provision affect the employee-related aspects. The quality of services helps companies to build their external image as a trustworthy service company (Oliva and Kallenberg, 2003). As far as the employees are concerned, having the necessary knowledge and the required skills, among other aspects, helps their individual readiness for organisational change (Hanpachern et al., 1998). Baines et al. (2013) noted six sets of skills relevant for employees involved in advanced services, which cover activities related to the customer interaction or the technical aspects, depending on their role. These skills include employees' soft skills and improve the way services are delivered (Antioco et al., 2008). In addition to having the necessary skills for services, employees need an appropriate motivation that supports the service provision (Kreye, 2016). This implies that, with the new requirement, rewards systems should support the service provision and motivate people involvement.

In the second transition stage (building a service culture) where the service strategy is integrated within the wider organisation, a wider circle of employees is affected by the organisational transition. This includes employees that affect the service value stream including otherwise product-focused departments such as planning, IT, logistics and marketing departments. Employees in these areas are expected to adapt their mindset to services as one of the offerings of the company (Martinez et al., 2010). Difficulties arise because the required mindset is related to the role of the employee and being involved in the product-related unit of the organization could hinder the collaboration with employees that are involved in the services (Rese and Maiwald, 2013). Organisational identity consisting of sharing the same purpose and standards as well as the shared identity with the subunit expressed as feeling a collective effort and responsibilities (van Dick et al.,

2018) is an aspect that should be considered in this stage. Organisational identity may still consist of a product-focused mind-set and integrating a service-related identity can cause resistance and tensions (Huy, 1999).

In the third transition stage (establishing a customer focus), front-line employees are the starting point for organisational innovation of the service business and are, thus, not only an operant resource (Kreye, 2016; Martinez et al., 2017), but also a creative resource (Laperche and Picard, 2013). This means that front-line employees such as sales staff and service engineers have to not only adjust their behaviour according to the individual customer (Bowen and Ford, 2002), but also function as a source of information and inspiration for internal service innovation activities. This requires internal information processing to identify new value potential through tracking and understanding changing customer requirements as well as translating these into offerings. The type of relationship between customer and employees, could constitute the premise for increasing employees motivation through feedback from the customer (He et al., 2015).

#### *General aspects involved in the transition*

General aspects involved in organisational transformations are commitment and experience with changes, either influencing people support or resistance towards the change.

In general, commitment is explained as a force “experienced as a mind-set (i.e., a frame of mind or psychological state that compels an individual toward a course of action)” (Meyer and Herscovitch, 2001, p.303). Meyer and Allen (1991) model of organisational commitment explained three dimensions of commitment based on their specific triggers. This model includes, the affective commitment of individuals presented as the emotional investment and willingness to be part of the organisation, the continuance commitment associated to the cost felt by people for the turnover behaviour and the normative commitment driven by rewards in advance or investments that lead to the feeling of duty. Herscovitch and Meyer (2002) found out that the supportive behaviour towards the change could be explained by people organisational commitment towards the change rather than by their general commitment to the organisation. The authors explain that people’s emotional implication in the change process (affective commitment), their sense of duty and responsibility towards the change (normative commitment) the lack of choice and the pressure associated with resistance (continuance commitment) determines them to approve the transformation. However, only the first two dimensions influence people effort in supporting the changes, implying that not having an alternative will not make them supportive.

Furthermore, people experience in terms of their expectations and openness to change. The negative valence of personal experience related to changes in the organisation can cause doubt about the organisational success to implement change due to the inability of managers (organisational cynicism) and a diminished level of openness to change (Bordia et al., 2011). In other words, previous failures of organisational changes influence employees’ opinion about the management capabilities and motivations for change. Bordia et al., (2011) concluded that, this lack of trust in the change efforts, increases to the negative feelings and diminishes the willingness to support the process of change. In addition to the negative personal experience, people assumptions could influence their behaviour. Ford et al. (2002) noted different types of conversations about changes that shape people expectation and lead to different type of resistance. In this context, authors explained that the background conversation about the company traditional way of succeeding (complacent background) increases people expectations to success in the same way and not interfere with the routine. As far as the conversation about the failures

of previous changes are concerned, attributing this lack of success to internal (resigned background) or external aspects (cynical background) leads to specific negative expectation about the people or company resources for succeeding (resigned background) or about the possibility of anyone to succeed with this change (cynical background). As a result, people resistance is driven by the specific nature of each employee's background.

### The proposed conceptual framework

Based on the above considerations, we propose a conceptual framework of the employee-related aspects of the organisational transition towards engineering services in three stages: offering engineering services, building a service culture and establishing a customer focus. For each stage, we propose employee-related aspects that could facilitate the understanding of the individual level of servitization. Figure 2 summarises the proposed framework with concepts explained above.

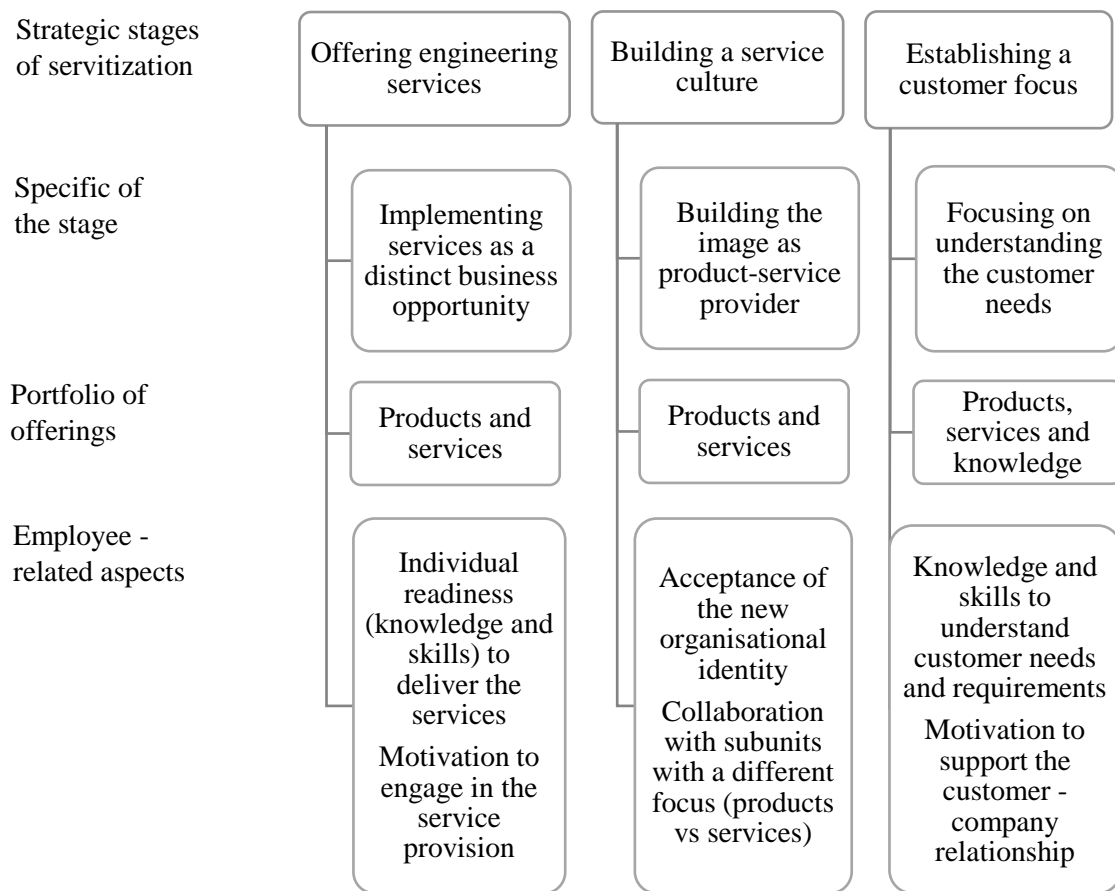


Figure 2 - The conceptual framework of the organisational transition towards servitization

### Conclusion and further directions

The aim of this paper was to identify those employee-related aspects relevant in the manufacturers' transition towards providing services. In order to enable the research of those specific aspects, we proposed the following research question: *What are the employee-related aspects that need to be considered depending on the stage of the transition towards engineering services provision?* Theoretical and empirical papers provided us insights and concepts that facilitate the development of a conceptual

framework of the employees' side of the organisational transition towards the services provision.

The proposed conceptual framework represents a starting point for investigating the individual level of servitization in a structured process. Due to the theoretical approach, the employee-related aspects could be considered only as preliminary outcomes that need further investigation. Further research consists on exploring the requirements from different types of stages of the transition and their impact on the employees' level. Understanding individual aspects that influence people behaviour during the transition offers the possibility to predict and overcome internal resistances with specific strategies.

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